At page 5, line 17:

The video mixing apparatus of the present invention comprises a key signal generator and a screen signal generator. The key signal generator generates a key signal based on a position of a source video signal in a key signal distribution formed by two ovals set in the three-dimensional space.

At page 5, lines 21-22:

The key signal generator sets an oval body in key signal distribution in the three-dimensional space including the luminance component. Further, the key signal generator generates a key signal based on a position of a source video signal in the key signal distribution. Thus, the key signal generator can separate properly the foreground object from the screen.

At page 6, lines 12-14:

Fig. 6 shows an example of cross sections; cross sections of distribution of pixels constituting a screen and a foreground object respectively, and a cross section of a boundary face specifying distribution of key signals generated by a key signal generator in accordance with the first exemplary embodiment of the present invention.

At page 7, line 12:

Fig. 17 is an example of a source video signal.

At page 7, lines 15-17:

Fig. 19 shows an example of cross sections; cross sections of distribution of pixels constituting a screen and a foreground object respectively, and a cross section of a boundary face specifying distribution of a key signal generated by the conventional key signal generator.

At page 9, lines 10-12:

As shown in Fig. 3B, "d" calculated by formula (6) represents a length of a shorted axis of an oval body which passes through Vs and has a center Vr shown in Fig. 3B, and satisfies the following formula:

At page 10, line 6:

Here is one example showing the production of a key signal from a source video shown in Fig. 4. Fig. 5 shows respective pixels-constituting the source video shown in Fig. 4-projected on a plane vertical to a color difference component plane. In Fig. 5, the pixels constituting the foreground object are distributed in the vicinity of region F 501, while the pixels constituting the screen are distributed in the vicinity of region X 502. Between these two regions, the pixels constituting the edge of foreground object are distributed, and the pixels are mixed with both the components of foreground object and the screen. In this case, if oval bodies E0 and E1 shown in Fig. 3A are used, boundary faces c 603 and d 604 can be set, so that region F 501 and region X 502 are properly separated. Meanwhile, boundary face c 603 is an oval body surrounding region F 501, and boundary face d 604 is an oval body surrounding boundary face c 603.

At page 10, line 15:

As such, the video mixing apparatus in accordance with this embodiment can set a boundary with a plane of an oval body, so that a key signal-properly separating a component of foreground object from a screen component-can be generated. As a result, a mixed video without lowering video quality can be supplied.

At page 12, line 19:

Parameters "Ar", "Aw" and "t" are set by a user, and $Ar > 0$, $Aw > 0$, $t > 0$.

At page 12, lines 20-22:

In other words, as shown in Fig. 9A, when source video signal Vs is inside first oval body E0 and the key signal generator outputs a key signal so that K = 0 is satisfied, screen signal generator 803 outputs source video signal Vs as it is.

At page 12, lines 24-25:

As shown in Fig. 9B, when source video signal Vs is outside oval E0 and the key signal generator outputs a key signal so that K >0 is satisfied, screen signal generator 803 outputs a coordinates value of point "c" as screen signal Vx, where point "c" is a cross point of vector VrVs 62 starting from screen reference color Vr toward source video signal Vs and oval body E0.

At page 13, line 13:

In this embodiment, the key signal distribution is formed by two oval bodies which share a common center Vr and also have the same ratio of shorter axis length vs. longer axis length. It is not limited to these oval bodies, but the key signal distribution can be formed by another two oval bodies having different centers and different ratios of shorter axis length vs. longer axis length. In this case, Vx = Vs is supplied to source video signal Vs which receives key signal K (K = 0), while a coordinates value of the cross point of vector VrVs starting from Vr toward Vs and oval body E0 is supplied as screen signal Vx to source video signal Vs which receives key signal K (K > 0).

At page 14, line 12:

Key signal generator 1001 outputs color-canceling key signal Kc and mixing key signal Km following formulas (14) – (16).

IN THE CLAIMS:

Please replace claims 1, 7 and 8 with the following:

1. A video mixing apparatus taking out a foreground object component from a source video signal obtained by shooting an object in front of a